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Recall 'Error' in Interview Studies of Past Drug Use

Since the discovery of the relation between diethylstilbestrol exposure in utero and the development of vaginal cancer many years later,¹ there has been increased interest in the study of the possible effects of past (distant) exposure to drugs. In studies reported to date, the primary source of information on past discontinued exposure to drugs has come from personal interview,²⁻⁵ although review of clinical records has also been used.^{6,7}

Record review is used infrequently to review past drug use history because this technique is normally far more expensive than patient interview and because the records frequently do not contain information on the distant past. The major validity problem with regard to drug exposure information in such studies is that false negative exposure histories may result from records that are themselves incomplete or from incomplete abstraction of the records.

Information obtained by patient interview may lead to both false positive and false negative exposure histories. It is reasonable to assume that in a study of the drug etiology of congenital malformations, mothers of babies with a deformity will, on the average, have a different recall perception, after delivery, of drugs taken at the time of or early in pregnancy than will mothers of normal infants. When the hypothesis under study is known to the interviewer(s), bias may be expected, particularly where distant history is involved. Where the interviewer is unaware of the hypothesis under study, this bias is considerably less of a problem.⁸

Recall "error," however, may represent the biggest validity problem of all in interview studies. Klemetti and

Saxén⁹ interviewed women about their early pregnancy drug intake at the fifth month of gestation and again after delivery. Interview results were compared with recorded documentation of drug intake. There was about a 10 per cent recall error for drugs when the interview took place during the fifth gestational month. After delivery, there was virtually no correlation between the information obtained at this later interview and the documented drug intake.

It is evident that recall error for events, and particularly drugs taken only in the past (beyond three months), is high, and the longer the interval between the event and the interview, the greater the error. Such error, if nonsystematic, of course, tends to lead to a null result.

While studies of "current" recent drug use may be carried out with considerable validity utilizing data obtained by patient interview, studies of past discontinued drug use must, in most instances, rely on prerecorded, reasonably complete documentation of use.

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Another Experience with Breast Cancer Survey

With regard to the article "Patient Attitudes Following Participation in a Health Outcome Survey,"¹ I would like to relate a somewhat comparable experience in which differing patterns emerged when the data were analyzed by sex and health status.

In order to assess the prevalence of breast cancer among women university faculty members and wives of faculty members, a brief questionnaire consisting of approximately a dozen questions relating to present age, menopausal status, age of diagnosis of breast cancer, age of birth of first child, etc., was sent out to all faculty. Response rates of 80 per cent (651) for the women and 72 per cent (1,718) for the men were obtained.

To ensure anonymity for the respondents, "ballot" envelopes were enclosed for the return of the questionnaire. The outside "ballot" envelope had a marked space for identification but on the inner envelope were instructions that identifying information was to be put only on the outside envelope. These "ballot" envelopes are commonly used at the university so there was little likelihood of the recipients not understanding their function.

Of the 2,382 that responded, 4.7 per cent replied anonymously; i.e., they did not put their name on the outside envelope. When looking only at the responses for those women who did have breast cancer, however, the results were somewhat different. Fourteen per cent of the faculty women who had had the disease and 22 per cent of the faculty men whose wives had had the disease did not identify themselves. This is in contrast to those that were disease free where only 2.7 per cent of the women and 4.9 per cent of the men replied anonymously.

It would seem from these results that the diagnosis of breast cancer still